

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: CATAMOUNT POND	Lake Area (ha): 7.28
Town: ALLENTOWN	Maximum depth (m): 3.0
County: Merrimack	Mean depth (m): 1.0
River Basin: Merrimack	Volume (m ³): 73000
Latitude: 43°09'48" N	Relative depth: 1.0
Longitude: 71°23'09" W	Shore configuration: 2.77
Elevation (ft): 500	Areal water load (m/yr): 281.6
Shore length (m): 2600	Flushing rate (yr ⁻¹): 271.0
Watershed area (ha): 4325.3	P retention coeff.: 0.04
% watershed ponded: < 0.10	Lake type: artificial

BIOLOGICAL:

25 January 1993

6 August 1992

DOM. PHYTOPLANKTON (% TOTAL)	#1	MICROCYSTIS>99%	CHRYSPHAERELLA 20%
	#2		FILAM. GREEN SPP. 20%
	#3		FILAM. BL-GR SPP. 15%
PHYTOPLANKTON ABUNDANCE (cells/mL)			300
CHLOROPHYLL-A (µg/L)			6.16
DOM. ZOOPLANKTON (% TOTAL)	#1	KERATELLA>99%	NAUPLIUS LARVA 36%
	#2		CYCLOPOID COPEPODS 16%
	#3		BOSMINA 13%
ROTIFERS/LITER		23	52
MICROCRUSTACEA/LITER		<1	200
ZOOPLANKTON ABUNDANCE (#/L)		23	301
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			1.2
BOTTOM DISSOLVED OXYGEN (mg/L)		13.9	0.4
BACTERIA (E. coli, #/100 ml)	#1		7
	#2		2
	#3		

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): None
Hypolimnion volume (m³): None
Anoxic volume (m³): 6500

CHEMICAL:

Lake: CATAMOUNT POND
Town: ALLENSTOWN

	25 January 1993		6 August 1992		
DEPTH (m)	1.0		1.0		2.0
pH (units)	5.5		6.4		6.2
A.N.C. (Alkalinity)	0.5		3.5		4.2
NITRATE NITROGEN	0.05		0.04		0.04
TOTAL KJELDAHL NITROGEN	0.15		0.28		0.41
TOTAL PHOSPHORUS	0.080		0.031		0.050
CONDUCTIVITY (μ mhos/cm)	36.8		36.2		36.1
APPARENT COLOR (cpu)	55		120		120
MAGNESIUM			0.48		
CALCIUM			1.9		
SODIUM			3.7		
POTASSIUM			0.45		
CHLORIDE	5		6		5
SULFATE	5		3		3
TN : TP	3		10		9
CALCITE SATURATION INDEX			4.1		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1992

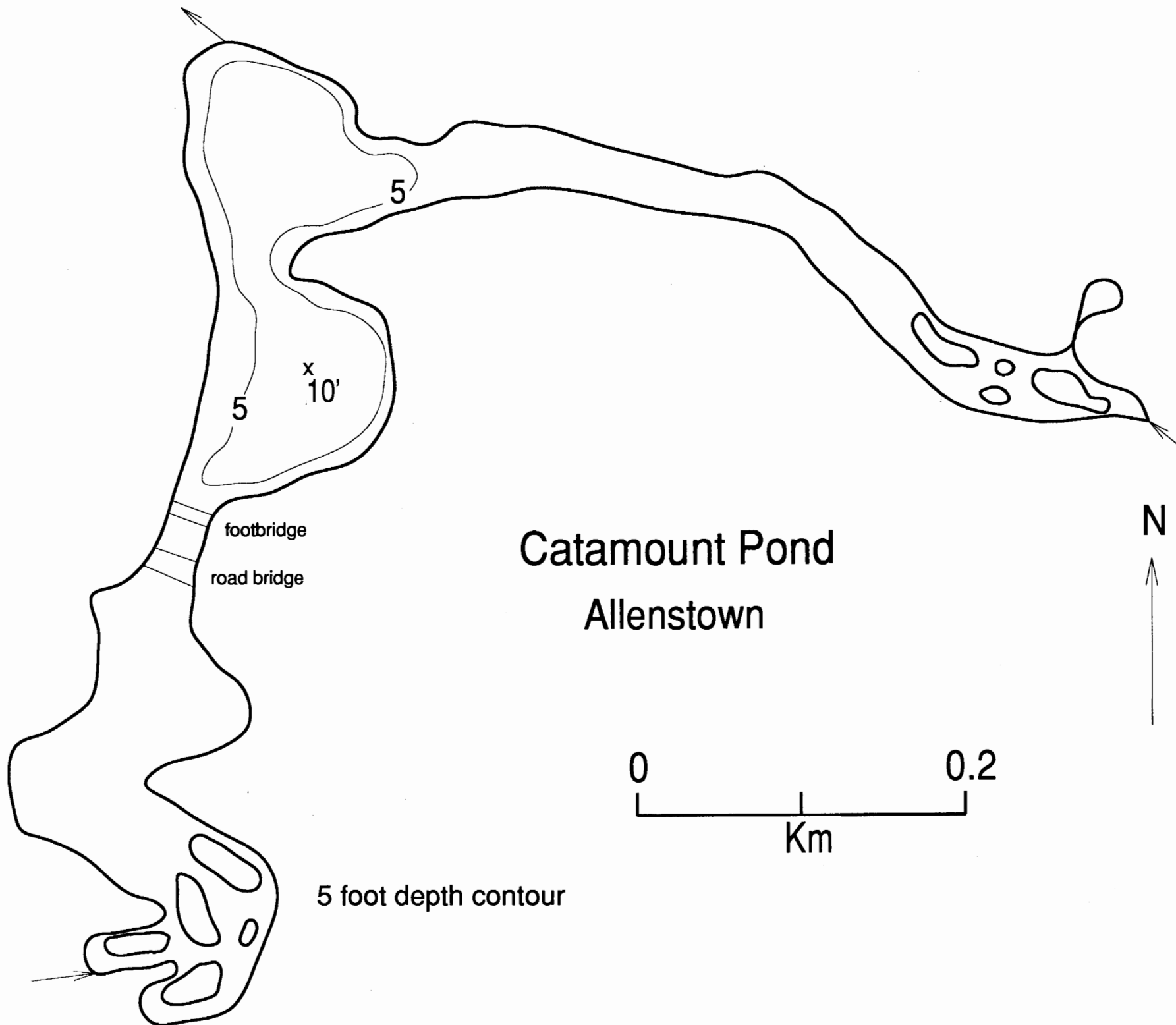
D.O. S.D. PLANT CHL TOTAL CLASS

**	4	3	1	8	Meso.
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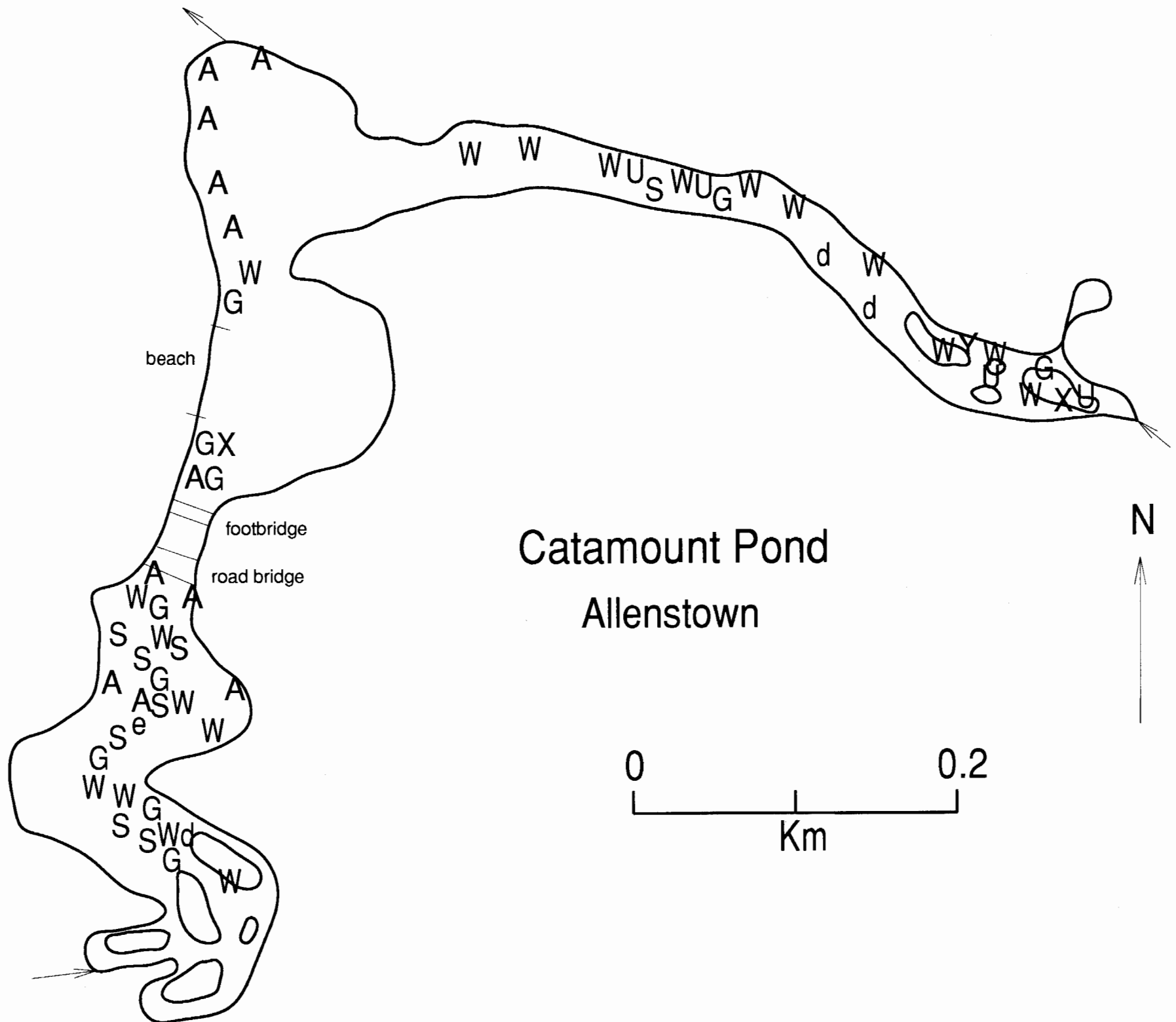
COMMENTS:

1. The pond is located in Bear Brook State Park. The park swimming beach is located on this pond with a roped off swimming area.
2. Also known as Bear Brook Pond.
3. Cryptomonas (40%) and Mallomonas (15%) were the dominant genera of wholewater phytoplankton.

111-40



[illegible]



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